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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/018,061

07/30/2002

David Bailey

APV 31535

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12/12/2007

STEVENS DAVIS MILLER & MOSHER, LLP

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EXAMINER

BELL, BRUCE F

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

12/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/018,061

Applicant(s)

BAILEY ET AL.

Examiner

Bruce F. Bell

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**: 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11-14 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-14 and 21-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant has added new claims 25 and 26 which do not have support in the original specification as filed. Applicants set forth that this material was added through support of PCT/FI99/00979, however, this document can not be used even though disclosed in the instant specification because the document has not been set forth as being "incorporated by reference". Therefore, material from that document can not be used as support in this instant application. Applicants are required to remove these claims as presented or add subject matter that is present in the instant specification as set forth in the original disclosure.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-9, 11-14 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over CA 910844.

CA 910844 discloses electrolytic processing for the recovery of copper, wherein the cathode blank 10 has a bottom edge 16 is provided with an inverted V-shaped groove 18 leading substantially to the cathode blank faces. See page 6, line 25 – page 7, line 2. The V-groove 18 at the bottom edge of the cathode blank 10 causes the copper to deposit at this edge in the form of dendrites which develop in directions normal to the sides of the groove. The plane at which these dendrites meet in their growth is a plane of weakness at which the deposit can readily be broken. See page 7, lines 12-17. The plane of weakness in the bottom edge deposit eliminates any serious interference with the stripping operation. See page 8, lines 26-27.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the instant invention was made because even though the prior art of CA 910844 does not specifically disclose the angle of the V-groove, the patent does disclose that the copper material when separated from the cathode plate, separates easily due to the plane of weakness in the bottom edge of the cathode plate. One having ordinary skill in the art would have the ability to perform routine experimentation in order to optimize this plane of weakness and further, the figure no. 3 of the CA patent shows the v-groove used in the bottom of the plate and it appears to be in the range as set forth in applicant's instant claims. Therefore, the prior art of CA

910844 renders the applicant's instant invention obvious for the reasons set forth above.

Response to Arguments

3. Applicant's arguments filed May 01, 2007 have been fully considered but they are not persuasive.

Applicants argue the rejection of claims 1, 2, 4-9, 11-14 and 21-24 under 35 USC 103(a) as being unpatentable over CA 910844. Applicants arguments are with respect to the CA 910844 patent not specifically disclosing the angle of the V-groove.

It is clear from the teaching in the CA 910844 patent that the V-groove at the bottom edge of the cathode blank deposits the copper at a bottom edge which includes a v-groove and that dendrites of the copper develop in directions normal to the sides of the groove, filling a portion of the V with the copper material and where the growth of the material from each edge of the V to the center of the V, a plane of weakness forms at the bottom edge of the cathode blank where the V-groove is located and forms an area at the bottom edge in which the deposit can be readily broken. Therefore, the area of the V-groove is partially filled with copper material as in the instant invention and the center of the V-groove where the plane of weakness forms in the CA patent, is the same as the line of weakness as set forth in the instant invention. Therefore, the CA patent even though it does not disclose the specific angles of the V-groove, does recognize that the V-groove must be partially filled with material and must also form a line of weakness to separate the copper sheets from the cathode plate. Applicant previously has attempted to rely on the CA 910844 Figure for there measurement of

the angle of the groove. However, measurement of the angle of the V-groove based on a figure that is assumed to be to scale does not set forth an accurate assessment of the patented inventions teachings. Based on the teaching of the CA patent, a line of weakness and frangible area in the groove does exist since the bottom edge of the cathode blank includes a V-groove and the weakness and frangible areas do exist in that grooved area. Therefore, the CA patent renders obvious the applicants instant invention as set forth above, since it is apparent that the angles of the v-groove of the patented invention are within the ranges set forth by the applicants instant invention for the copper sheets to have a line of weakness within the V-groove, and since the material does in fact fill a portion of the area of the groove which is stated as being critical in applicants instant specification for the line of weakness to form. Based on the teachings in the CA patent, since the copper fills only a portion of the V-grooved area, it would stand to reason that there would be some gas entrapment in the V-grooved area beneath the copper that fills the groove, absent evidence to the contrary.

Applicants argues that the plane of weakness defined by the patent invention of the CA patent does not describe the weakness being within the V-groove. The examiner disagrees. The patent describes that the plane of weakness is found at the base edge of the cathode plate. When the patent is describing the "base edge", they are inferring that the base edge includes the V-groove, and therefore, the plane of weakness is found on the base edge and that base edge is the V-groove, therefore, the CA patent does in fact describe that the plane of weakness is within the V-groove.

Applicant further argues that in the CA patent, that claim 3 defines an "inverted V-shaped groove in the bottom peripheral edge, and then further states the plane of weakness is formed in the copper "deposited at this edge". The examiner would like to point out that by this statement, the CA patent is saying that the "V-groove is the bottom edge" of the cathode plate. Applicant is construing the "edge" to be one side of the plate or the other side of the plate where it comes to a point, however, this is not what the CA patent is saying. The CA patent is saying that the V-groove is the bottom edge and that the entire bottom is the edge and that the V-groove takes up the entire bottom edge. Therefore, applicants arguments are moot.

Applicant argues that the 1.132 declaration shows and discussed the criticality of the angle ray of the V-groove. The examiner would like to point out that the declaration is flawed since the applicants are using data that the drawing figure 3 has an angle of 50 degrees, which is an incorrect assumption based on a figure that is not set forth to have been drawn to scale. Therefore, the points made by such document are moot.

Applicant further sets forth the incorporation of new claims based on PCT document PCT/FI99/00979 stating that the use of a flexing cathode plate and a resilient stainless steel sheet, however, these aspects are not found in the original specification as set forth and the PCT/FI99/00979 document was not incorporated by reference into the original specification and therefore, the addition of such language into the instant claims and instant specification is considered to be new matter and is requested to be withdrawn to overcome the rejection set forth above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BFB
December 4, 2007


Bruce F. Bell
Primary Examiner
Art Unit 1795